

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Madhav Datta et al. Examiner: Long Pham
 Serial No.: 09/961034 Group Art Unit: 2814
 Filed: September 21, 2001 Docket: 884.522US1
 Title: COPPER-CONTAINING C4 BALL-LIMITING METALLURGY STACK FOR
 ENHANCED RELIABILITY OF PACKAGED STRUCTURES AND METHOD OF
 MAKING SAME
 Assignee: Intel Corporation



SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

#9/Suppl.
 IDS
 mR 7/7/03

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Supplemental Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. § 1.97(c)(2), Applicants have included the fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p). Please charge any additional fees or credit any overpayment to Deposit Account No. 19-0743.

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

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Respectfully submitted,

MADHAV DATTA ET AL.

By their Representatives,

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Date July 9, 2003

By Ann M. McCrackin
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 9 day of July, 2003

Name

KACIA LEE

Signature

Kacia Lee

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)



Sheet 1 of 1

Complete if Known

Application Number	09/961034
Filing Date	September 21, 2001
First Named Inventor	Datta, Madhav
Group Art Unit	2814
Examiner Name	Pham, Long

Attorney Docket No: 884.522US1

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-3,663,184	05/16/1972	Wood, John R., et al.	29	195	01/23/1970
	US-4,290,079	09/15/1981	Carpenter, Charles, et al.	357	71	06/29/1979
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	US-4,505,029	03/19/1985	Owyang, King, et al.	29	589	07/08/1983
	US-5,648,686	07/15/1997	Hirano, Naohiko, et al.	257	778	07/26/1995
	US-5,736,456	04/07/1998	Akram, S.	438	614	07/17/1996
	US-5,773,359	06/30/1998	Mitchell, Douglas G., et al.	438	614	12/26/1995
	US-5,885,891	03/23/1999	Miyata, Masahiro, et al.	438	612	07/16/1997
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	US-6,232,212	05/15/2001	Degani, Yinon, et al.	438	612	02/23/1999
	US-6,348,730	02/19/2002	Yi, Sang-Don, et al.	257	737	08/03/2000
	US-6,426,282	07/30/2002	Saigal, Dinesh, et al.	438	613	05/04/2000
	US-6,489,229	12/03/2002	Sheridan, Devin R., et al.	438	614	09/07/2001

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	RECEIVED
	JP-2001189334	07/10/2001	RI, Soton, et al.	H01L	21/61	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	RECEIVED
		"Chromium Copper Step Phasing", IBM Technical Disclosure Bulletin, (08/01/1977), pgs. 1005-1006	2003 08/28/02
		TUMMALA, RAO, et al., "Microelectronics Packaging Handbook, Semiconductor Packaging", Part 2, 2nd Edition, (1997), pgs. 132-139	2003 08/28/02

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached